

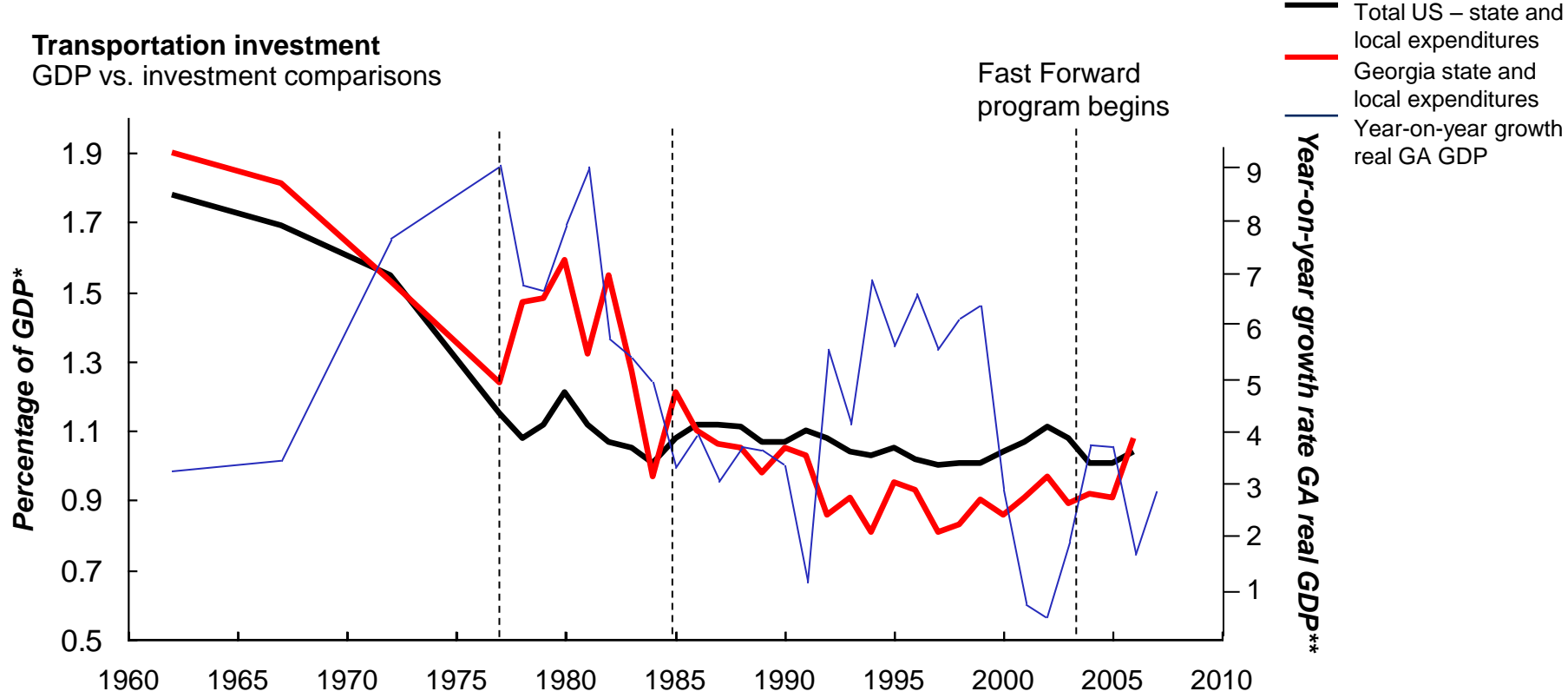
Meeting Georgia's Mobility  
Challenge  
IT3  
By McKinsey and Company

# IT3 STRATEGY: KEY FINDINGS

- Over the last several decades, Georgia's population and economy have grown rapidly, and its transportation investments have played a key role in that success
- However, over the last 20 years, Georgia has undermanaged and underinvested in its assets. The lack of improvement to these assets has contributed to performance gaps on the transportation system and put Georgia's future quality of life and economic growth at risk. Scenarios were developed to find the best solutions
- The economic benefits of changing "business as usual" in transportation are compelling: a disciplined, outcome-focused strategy in 3 categories (people mobility in Metro Atlanta, freight and logistics, and people mobility / safety in rest of state) could generate an additional 320,000 jobs over the next 20 years and up to ~\$590 billion\* in economic benefits to Georgia over the next 30 years
  - In Metro Atlanta, by combining demand management, infrastructure investments, and coordinating those investments with development patterns, Georgia could generate an additional 230,000 jobs over 20 years and \$306-345 billion\* in economic benefits over 30 years
  - In medium-sized cities and rural areas, by combining demand management, infrastructure investments, and coordinating those investments with development patterns, Georgia could generate an additional ~90,000 jobs over 20 years and ~\$156 billion\* in economic benefits over 30 years
  - By capturing the freight opportunity, Georgia could generate ~\$57-88 billion\* in economic benefits over 30 years
- The investment costs to achieve these outcomes range from \$91-148 billion\* over the next 20 years. 1/3 to 2/3 of these costs are already covered by existing revenues and the remainder can be addressed through a variety of sources over 20-40 years

\* In 2008 dollars. The investment required for IT3 is also frequently quoted in Year of Expenditure (YOE) dollars. The investment required in YOE ranges from \$150-257 billion

# GA'S TRANSPORTATION INVESTMENTS RELATIVE TO GDP HAVE BEEN INSUFFICIENT FOR MAINTAINING MOBILITY AND ECONOMIC GROWTH



End of interstate system investment: 1962-1977	Major investment: 1977-1985	Reaping the benefits of past investments: 1985-2004	Future investment?
<ul style="list-style-type: none"><li>• Slow growth in lane miles per capita</li></ul>	<ul style="list-style-type: none"><li>• “Free the Freeways”</li><li>• MARTA</li></ul>	<ul style="list-style-type: none"><li>• GA investment lower than US investment despite growth</li><li>• Investment increase after 2004 primarily financed through bonds</li></ul>	<ul style="list-style-type: none"><li>• What is the sustainable investment path for the future?</li></ul>




\* Used 5-year CAGR to estimate 2001 and 2003 local expenditures data

\*\* GA real GDP growth rate assumptions: 1962-1977 - used 30-year average CPI rate forecasts from 2000-2030 and subtracted from nominal GA GDP growth rate from 1962-1977. 1978-2007 - used GA real GDP growth rate

Source: U.S. Bureau of Economic Analysis, U.S. Census Bureau, Georgia Department of Audits and Reports (FY 2003-06)

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# IT3 IS ABOUT MAKING TARGETED INVESTMENTS IN 3 CATEGORIES AND DRIVING AN ATTRACTIVE RETURN FOR THE TAXPAYER

Investment categories	Cost 2008 dollars	Benefit* 2008 dollars
<b>New capacity:**</b>		
 1. Metro Atlanta people mobility	• \$26-43B	• \$306-345B
 2. Medium-sized cities and rural area people mobility	• \$15-36B	• \$156B
 3. Freight	• \$18-37B	• \$57-88B
Maintenance of existing system	• \$27B	• Lifecycle savings
Debt service on current bond issuance	• \$5B	• Not applicable
<b>Total</b>	<b>• \$91-148B</b>	<b>• \$520-590B in economic benefit • 320,000 jobs</b>

\* Jobs estimated over 20 year period; economic benefit (congestion costs and expected GDP growth) estimated over 30 year period

\*\* Includes O&M costs for new capacity investments. All cost and benefit figures are in 2008 dollars



## METRO ATLANTA PEOPLE MOBILITY: KEY FINDINGS

- By investing and building \$26-43 billion in infrastructure, Georgia could generate \$114 billion in additional GDP growth and an additional 230,000 jobs over the next 20 years
- The GDP and congestion cost reduction benefits become even larger over 30 years, reaching up to \$345 billion in today's dollars
- However, reaping the full benefit requires bringing together 4 critical, mutually reinforcing elements:
  - An aggressive regional demand management strategy
  - A network of reliable, “connecting” infrastructure that relieves congested corridors and makes large employment centers more economically competitive.
  - Investments in the “first and last mile” of a trip (e.g., premium transit circulators and arterial roads) to compliment the connecting infrastructure
  - Better alignment between where development occurs and where investments are made



# FOR METRO ATLANTA, INVESTING \$26-\$43 BILLION IN NEW CAPACITY COULD DRIVE UP TO \$345 BILLION IN BENEFITS

## Demand management

### Incremental investment 2008 Dollars

- **\$220 million\*** (for HOV-HOT conversion, VMT fees or congestion pricing, employer-based initiatives)

### Incremental returns 2008 Dollars

- **\$40 billion** over 30 years in reduced congestion costs (wasted time and fuel)

## Infrastructure investment

- Reliable “connecting” infrastructure and circulators: **\$26.0 billion**
- Doubling down in congested corridors (transit and road): **\$17.2 billion**

- **Additional \$40 billion** over 30 years in reduced congestion costs
- **Additional \$10 billion** over 30 years in reduced congestion costs

## Better coordination between investment and development patterns

- **\$0** (if the “right” investments are made and market responds)

- **\$39 billion** over 30 years in reduced congestion costs

By improving the value proposition to employers and people, these measures could also add ~\$216 billion in additional GDP growth over 30 years\*\*

- Reduction in congestion costs alone (\$119-129 billion over 30 years) justifies the investment, though GDP benefits are even more substantial
- Capturing full benefit, however, requires more than just investing in infrastructure. Managing demand and coordinating the infrastructure investment with future development patterns are as important as the infrastructure itself

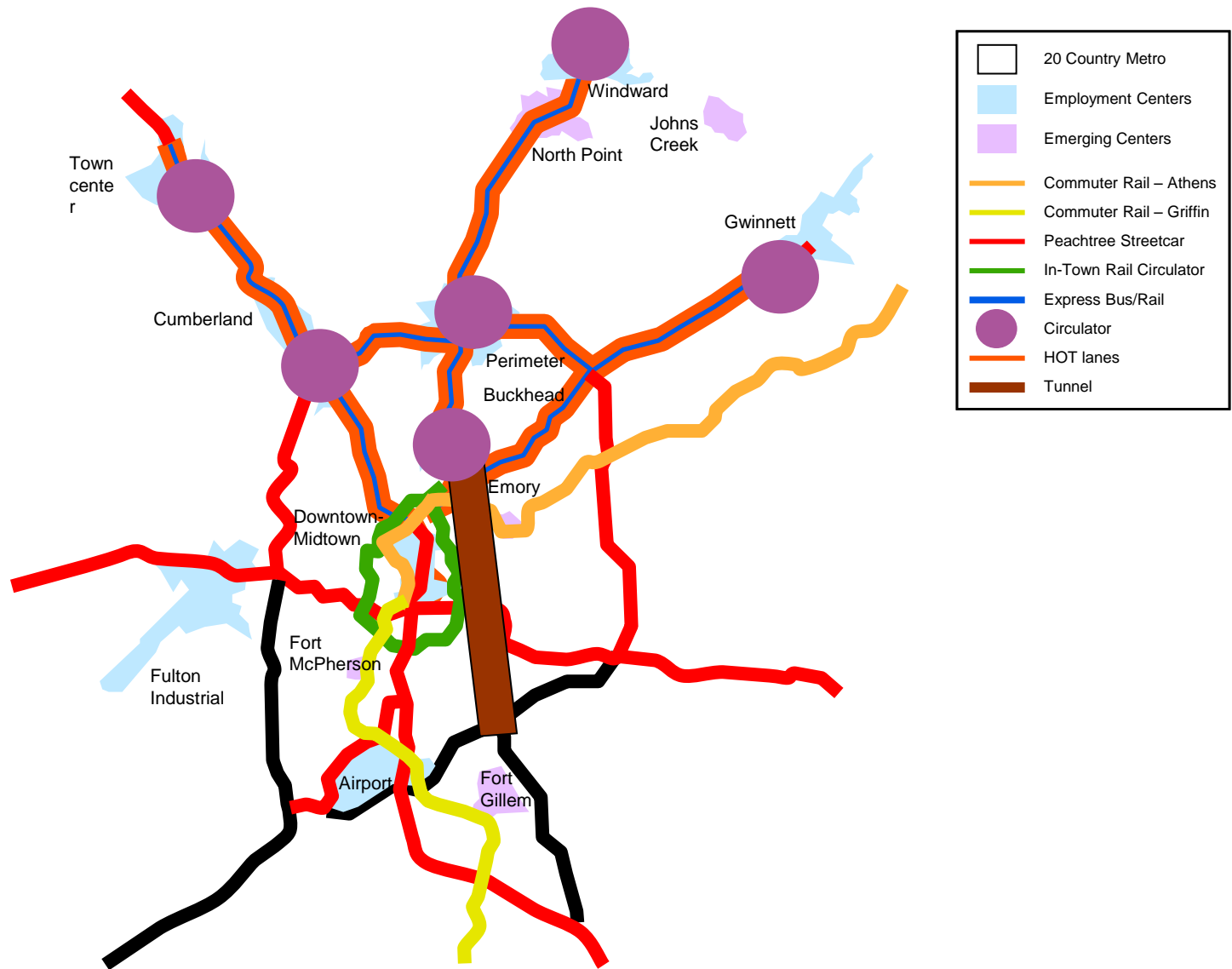
\* Cost estimate for demand management reflect the cost of converting existing HOV lanes to HOT lanes. It does not include the cost of implementing a congestion pricing regime. The analysis assumes the cost of a congestion pricing program would be financed out of the revenues the program generates

\*\*Assumes an incremental .25% GDP growth per year over 20 years

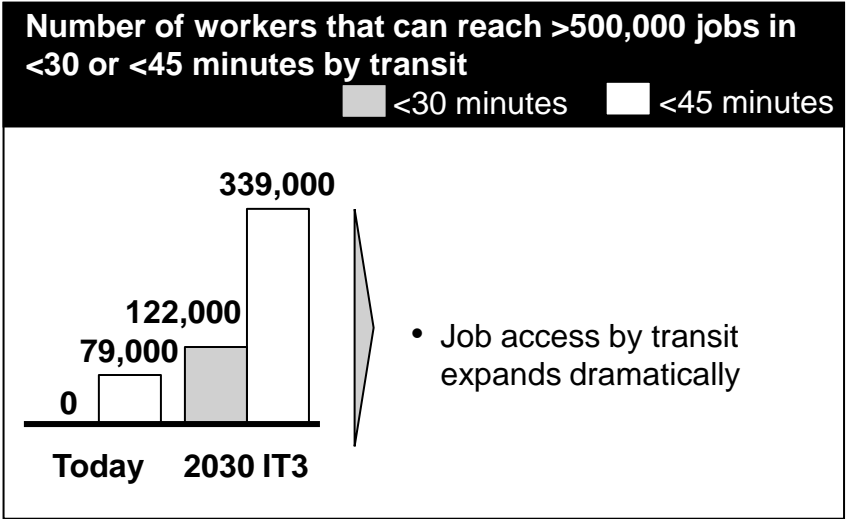
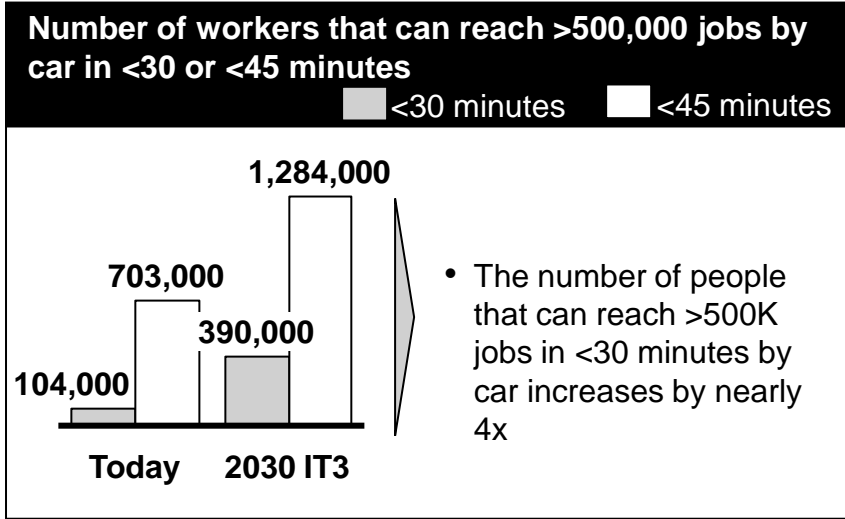
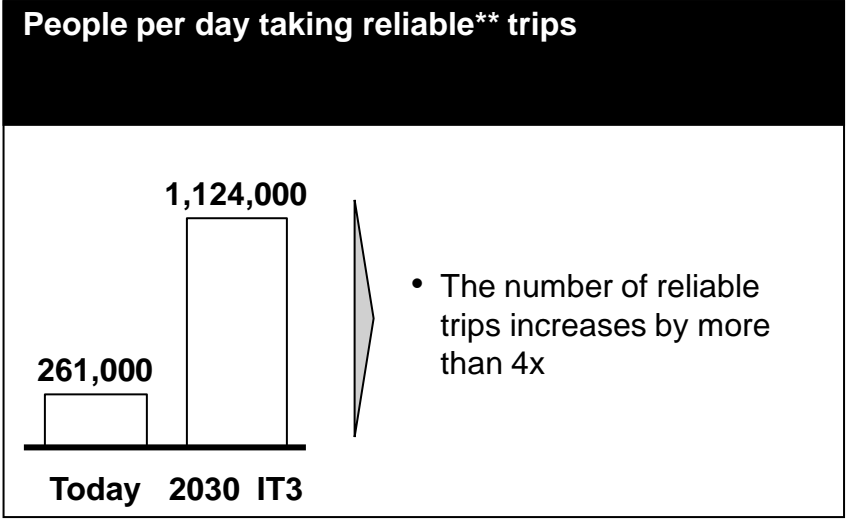
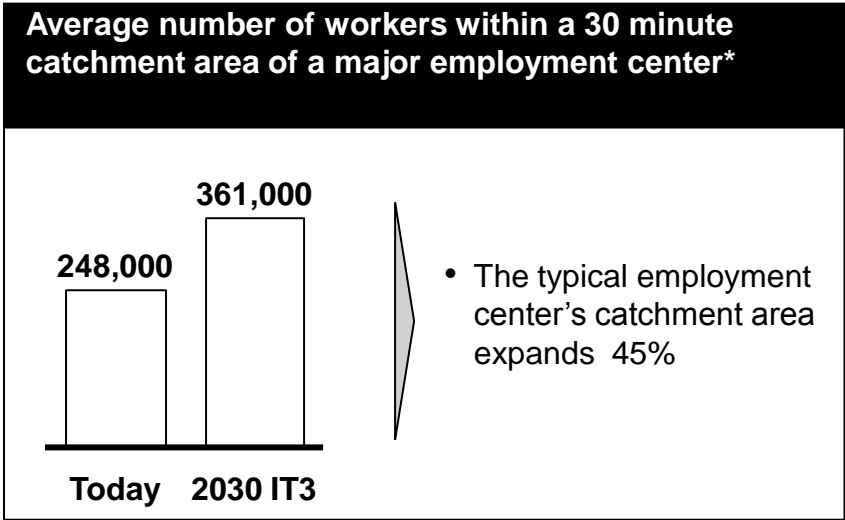


# METRO ATLANTA PEOPLE MOBILITY: EXAMPLE MAP OF POTENTIAL INVESTMENTS

ILLUSTRATIVE



# IT3 INVESTMENTS RESULT IN AN ATLANTA REGION THAT IS MORE LIVABLE AND ECONOMICALLY COMPETITIVE



\* Major employment centers include Downtown/Midtown, Buckhead, Cumberland Galleria, Perimeter Center, Gwinnett Place, Fulton Industrial Blvd, Airport, Winward Parkway, and Town Center

\*\* Reliable person trips are person tips on transit and HOT / HOV trips



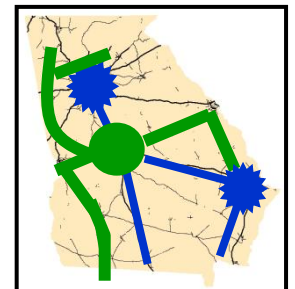
## MEDIUM-SIZED CITIES AND RURAL AREAS PEOPLE MOBILITY: KEY FINDINGS

- By investing and building \$14\* billion in infrastructure in medium-sized cities, Georgia could generate an attractive return: 86,000 new jobs over the next 20 years and \$156 billion in economic benefit over 30 years
- Capturing the full benefit in medium-sized cities requires demand management and coordinating the investment with development patterns. Demand management and coordination account for ~30-50% of the reduction in congestion cost
- The freight and logistics investment strategy is a critical piece of expanding job and economic growth in medium-sized cities and rural areas
  - The \$88 billion in economic impact from the freight and logistics investments would primarily be felt in medium-sized cities and in rural areas



## FREIGHT AND LOGISTICS: KEY FINDINGS

- By investing and building \$18-37 billion in infrastructure, Georgia could generate \$57-88 billion in additional GDP growth and reduced congestion costs over the next 30 years
- Key investments in the freight strategy for trucks range from \$18-28 billion and include
  - Relieving major freight bottlenecks (e.g., Atlanta interstate interchanges, first and last mile connectivity at Port of Savannah)
  - Creating efficient, reliable by-passes for “through” truck traffic around Metro Atlanta
  - Filling the most critical gaps between supply and demand (e.g., Fall line freeway corridor)
- The state may also choose to invest up to \$9 billion in relieving freight rail bottlenecks and/or creating new freight rail lines, as these investments could also stimulate economic growth. Additional exploration of the business case for freight rail investment will be carried out by the Commission for New Georgia’s Freight and Logistics Taskforce Implementation Team.



## Legend

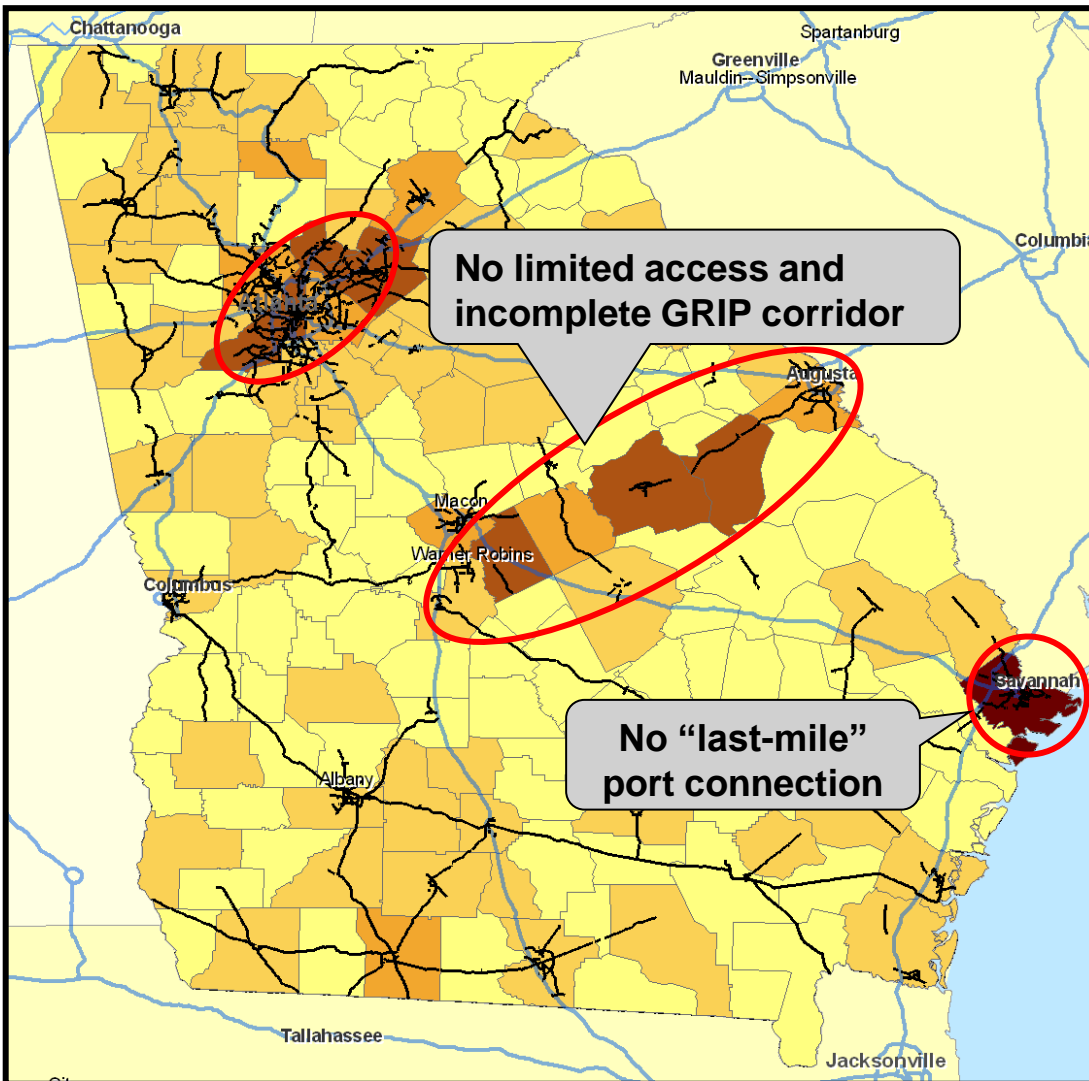
- 4-Lane Roads
- Freeway System (State)

## Total Tonnage 2004

- < 1,000,000
- 1,000,001 - 5,000,000
- 5,000,001 - 10,000,000
- 10,000,001 - 20,000,000
- 20,000,001 - 25,953,293

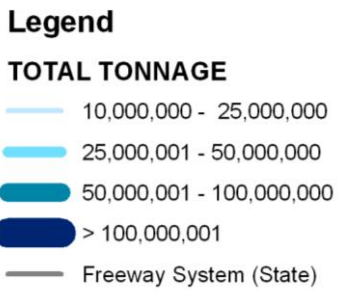
# 3 HUBS ACCOUNT FOR MAJORITY OF TRUCK VOLUME: ATLANTA, SAVANNAH, & MACON-AUGUSTA CORRIDOR

## Origin of truck tonnage by county

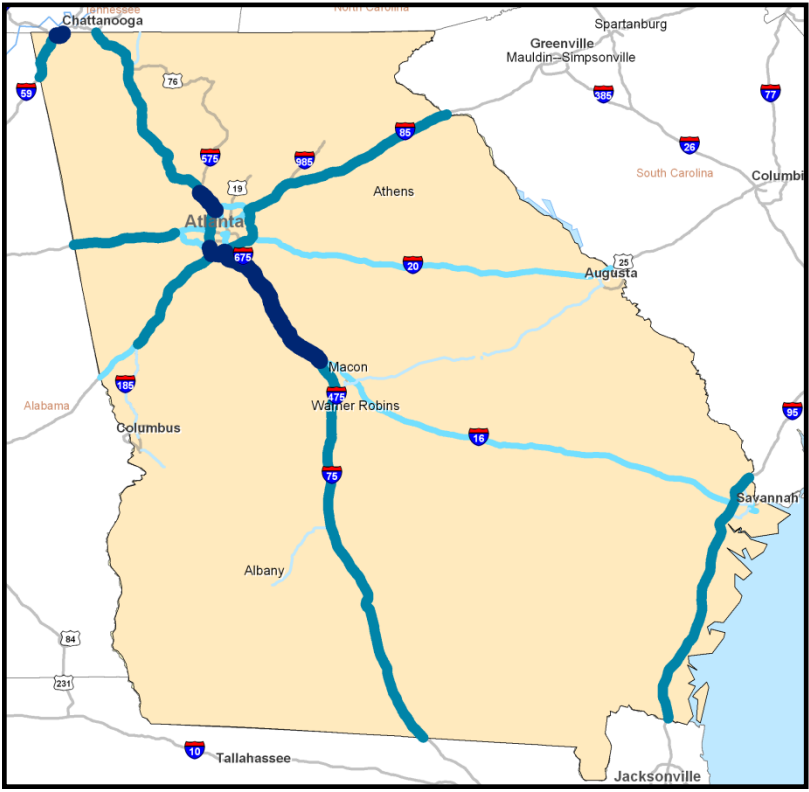


- Approximately 50% of freight volume by truck concentrated in 3 hubs

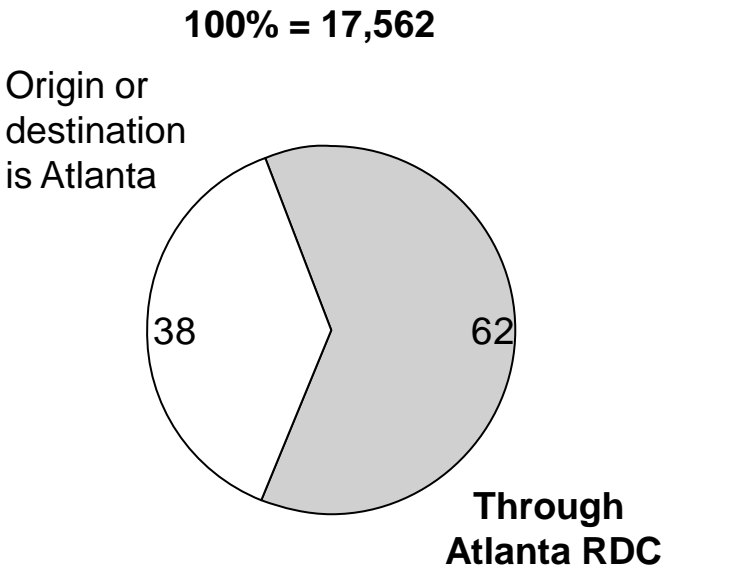
# IN METRO ATLANTA, BY-PASSES ARE APPEALING BECAUSE MORE THAN 60% OF TRUCK TON MILES ARE “THROUGH” ATLANTA



## GA “through” freight traffic



## Distribution of Atlanta RDC’s truck traffic Percent - Millions of ton miles

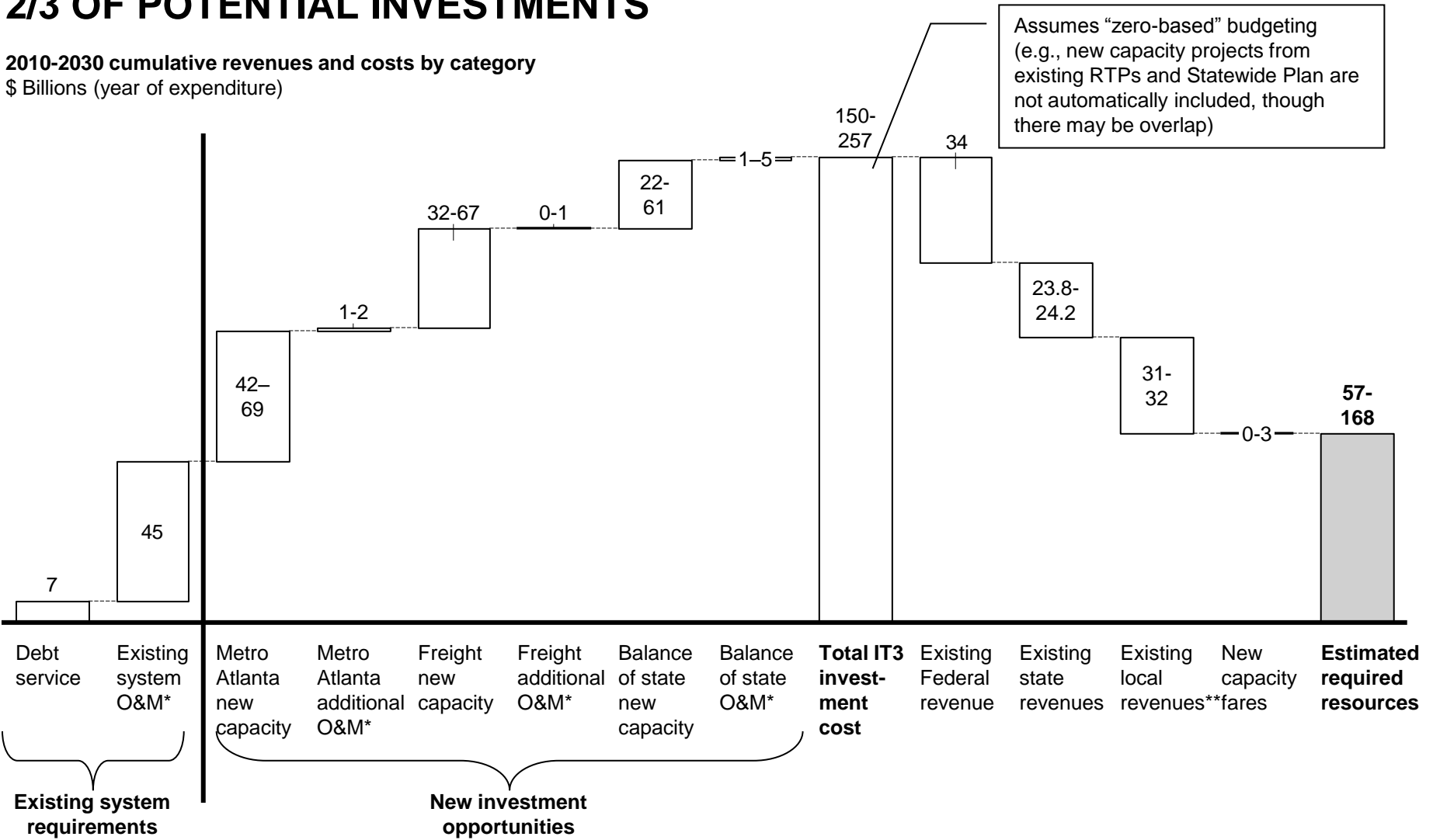


Atlanta RDC’s “through” traffic is **~28K trucks** per day - equivalent to **~100K cars** per day\*

\* Assumes 17 tons per truck and 3-4 cars per truck

# IF WE PRIORITIZE OUR CURRENT RESOURCES, GA CAN COVER UP TO 2/3 OF POTENTIAL INVESTMENTS

2010-2030 cumulative revenues and costs by category  
\$ Billions (year of expenditure)



\* Operations and maintenance

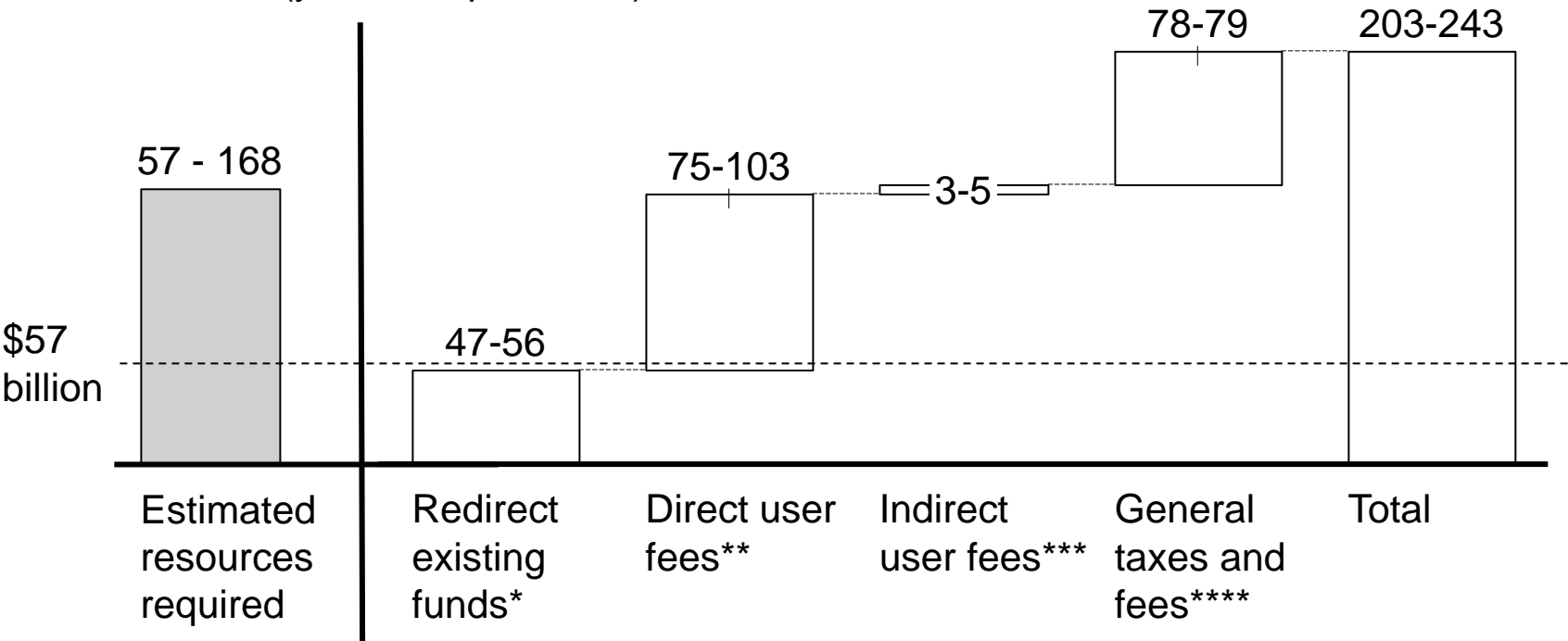
\*\* Local revenues include: MARTA sales tax, MARTA and GRTA transit fares, other urban and rural transit fares, local SPLOSTs, other local revenues, and a portion of local General Fund appropriations spent on highways, streets, and drainage

Source: Georgia SAFETEA-LU, FHWA, FTA, GDOT, GDOT Budget Office, SRTA, GSF&IC, MARTA, GRTA, Metro Atlanta Chamber of Commerce, GMA, ACCG, GA Department of Revenue, Department of Community Affairs, EIA 2008 Projections, CBO Reports, Global Insight, US Bureau of Economic Analysis, expert interviews

# GA COULD RAISE ~\$203-\$243B THROUGH A MIX OF DIRECT AND INDIRECT USER FEES, NEW TAXES, AND REDIRECTING EXISTING REVENUE

## Potential sources of revenue: 2010-2030

\$ Billions (year of expenditure)



\* Redirect existing funds: reallocate transportation-related taxes to transportation spend (motor vehicle fees, utility fees, driver's license fees, tags/decals, titles, parking facilities), have State General Fund pay GDOT's debt service on GO bonds, monetize unused ROW assets, 1% state motor fuel sales tax, 1-3% local motor fuel tax, and ad-valorem/property taxes on vehicles. The re-direction of the ad valorem property tax on vehicles was not favored or endorsed by the State Transportation Board.

\*\* Direct user fees: tolls, emissions fees, parking fees, "pay by the mile" fees, lease fees on state assets, and increased motor fuel excise tax

\*\*\* Indirect user fees: rental car fees, encroachment fees, and impact fees

\*\*\*\* General taxes and fees: hotel taxes, state sales tax, property tax on real estate (% dedicated to transportation), regional/local T-SPLOSTs, local sales taxes, and tax allocation districts (TADs)

Source: US DOT, FHWA, FTA, GDOT interviews, other state DOT interviews, GRTA research, Department of Revenue, Department of Driver's Services, Department of Community Affairs, ACCG, GMA, GSFIC, National Community Survey, Smith Travel Research's Monthly Lodging Review, Auto Rental News, FCC, ARC, Atlanta Development Authority, Metro Atlanta Chamber of Commerce, EIA 2008 forecasts, US Census Bureau, US Bureau of Economic Analysis, Kimley-Horn, expert interviews